

IN THE SPECIFICATION:

Please amend the specification as follows:

On page 1 please replace the paragraph beginning, " This application claims priority to," with the following paragraph:

9¹ This application claims benefit under 35 U.S.C. §119(e) to provisional patent application no. 60/103,115, filed October 5, 1998 (now expired), which is incorporated by reference herein in its entirety.

IN THE CLAIMS:

Please amend the claims as follows:

Cancel claim 60 without prejudice.

Amend claims 51, 56, 68, 77, 78, 79-84, 86, 87, 90, 101, 103, and 111 to read as follows:

51. (amended) A method for screening a small organic molecule for the ability to modulate heat shock protein receptor activity comprising:

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- (a) contacting heat shock protein receptor positive cells with the small organic molecule; and
 - (b) comparing the level of heat shock protein receptor binding activity in the heat shock protein receptor positive cells contacted with the small organic molecule to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so contacted,

wherein an increase or decrease in the amount of heat shock protein receptor binding activity in the contacted heat shock protein receptor positive cells relative to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so

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contacted indicates that the small organic molecule has the ability to modulate heat shock protein receptor activity.

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56. (amended) A method for screening a molecule for the ability to modulate heat shock protein receptor activity comprising:

- (a) contacting heat shock protein receptor positive cells with the molecule; and
- (b) comparing the level of heat shock protein receptor binding activity in the heat shock protein receptor positive cells contacted with the molecule to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so contacted,

wherein an increase or decrease in the amount of heat shock protein receptor binding activity in the contacted heat shock protein receptor positive cells relative to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so contacted indicates that the molecule has the ability to modulate heat shock protein receptor activity, wherein the level of heat shock protein receptor binding activity is assayed by measuring the ability of the molecule to modulate the binding of a heat shock protein or a heat shock protein-peptide complex to the cells.

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68. (amended) The method of claim 51 wherein the small organic molecule is attached to a solid surface.

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77. (amended) The method of claim 51 or 56, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

78. (amended) The method of claim 51 or 56, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.

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79. (amended) A method for screening a plurality of molecules for one or more molecules having the ability to modulate, directly or indirectly, the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells *in vitro* comprising:

- (a) contacting said plurality of molecules with: (i) heat shock protein receptor positive cells; (ii) a purified complex of a heat shock protein and a peptide; and (iii) cytotoxic T cells, under conditions conducive to the activation of cytotoxic T cells; and
- (b) comparing antigenic cell cytotoxicity of said T cells with the cytotoxicity of T cells in the absence of said plurality of molecules,

wherein a lower or higher degree of cytotoxicity indicates that one or more molecules in said plurality of molecules modulates the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells against the peptide.

80. (amended) A method for screening an antibody specific to a heat shock protein or a heat shock protein receptor for the ability to modulate, directly or indirectly, the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells *in vitro* comprising:

- (a) contacting the antibody with heat shock protein receptor positive cells and cytotoxic T cells under conditions conducive to the activation of cytotoxic T cells; and
- (b) comparing antigenic cell cytotoxicity of said T cells with the cytotoxicity of T cells in the absence of said antibody,

wherein a lower or higher degree of cytotoxicity indicates that the antibody modulates the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells against the antibody.

81. (amended) A method for screening a molecule for the ability to modulate, directly or indirectly, the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells *in vitro* comprising:

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- (a) contacting the molecule with: (i) purified heat shock protein receptor positive cells; (ii) a purified complex of a heat shock protein and a peptide; and (iii) cytotoxic T cells, under conditions conducive to the activation of cytotoxic T cells; and
 - (b) comparing antigenic cell cytotoxicity of said T cells with the cytotoxicity of T cells in the absence of said molecule,


wherein a lower or higher degree of cytotoxicity indicates that the molecule modulates the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells against the peptide.

82. (amended) A method for screening a plurality of molecules for one or more molecule(s) having the ability to modulate, directly or indirectly, antigen presentation activity of heat shock protein receptor positive cells comprising:

- (a) contacting said plurality of molecules with heat shock protein receptor positive cells;
- (b) measuring antigen presentation by said heat shock protein receptor positive cells in the presence of said plurality of molecules; and
- (c) comparing antigen presentation activity by the heat shock protein receptor positive cells in the presence of said plurality of molecules with the antigen presentation activity by the heat shock protein receptor positive cells in the absence of said plurality of molecules,

wherein a lower or higher degree of antigen presentation indicates that one or more molecule(s) modulates the antigen presentation activity of the heat shock protein receptor positive cells.

83. (amended) A method for screening an antibody specific to a heat shock protein or a heat shock protein receptor for the ability to modulate, directly or indirectly, antigen presentation activity of heat shock protein receptor positive cells comprising:


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- (a) contacting an antibody specific to a heat shock protein or a heat shock protein receptor with heat shock protein receptor positive cells;
 - (b) measuring antigen presentation by said heat shock protein receptor positive cells in the presence of said antibody; and
 - (c) comparing antigen presentation activity by the heat shock protein receptor positive cells in the presence of the antibody with the antigen presentation activity by the heat shock protein receptor positive cells in the absence of the antibody,

wherein a lower or higher degree of antigen presentation indicates that the antibody modulates the antigen presentation activity of the heat shock protein receptor positive cells.

84. (amended) A method for screening a molecule for the ability to modulate, directly or indirectly, antigen presentation activity of heat shock protein receptor positive cells comprising:

- (a) contacting a molecule with: (i) a purified complex of a heat shock protein and a peptide; and (ii) purified heat shock protein receptor positive cells;
- (b) measuring antigen presentation by said heat shock protein receptor positive cells in the presence of said molecule; and
- (c) comparing the antigen presentation activity by the purified heat shock protein receptor positive cells in the presence of the molecule with the antigen presentation activity by purified heat shock protein receptor positive cells in the absence of the molecule,

wherein a lower or higher degree of antigen presentation indicates that the molecule modulates the antigen presentation activity of the heat shock protein receptor positive cells.



86. (amended) The method of claim 81 or 84, wherein the molecule is a peptide or protein, or derivative, analog or fragment thereof.

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87. (amended) The method of claim 81 or 84, wherein the molecule is a small organic molecule or a nonpeptide.

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90. (amended) The method of claim 81 or 84, wherein the molecule is attached to a solid surface.

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101. (amended) The method of claim 81 or 84, wherein the molecule is purified.

103. (amended) A method for screening a peptide library for the ability to modulate heat shock protein receptor activity comprising:

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- (a) contacting heat shock protein receptor positive cells with a member of a peptide library; and
 - (b) comparing the level of heat shock protein receptor binding activity in the heat shock protein receptor positive cells contacted with the member of the peptide library to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so contacted,

wherein an increase or decrease in the amount of heat shock protein receptor binding activity in the contacted heat shock protein receptor positive cells relative to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so contacted indicates that the member of the peptide library has the ability to modulate heat shock protein receptor activity.

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111. (amended) The method of claim 103, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.

Add new claims 112-121 as follows:

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112. (new) The method of claims 79 or 82, wherein the molecules are peptides or proteins, or derivatives, analogs or fragments thereof.

113. (new) The method of claim 79 or 82, wherein the molecules are a small organic molecules or a nonpeptides.

114. (new) The method of claim 79 or 82, wherein the molecules are attached to a solid surface.

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115. (new) The method of claim 79 or 82, wherein the molecules are purified.

116. (new) The method of claim 69, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

117. (new) The method of claim 70, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

118. (new) The method of claim 71, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

119. (new) The method of claim 69, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.

120. (new) The method of claim 70, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.

121. (new) The method of claim 71, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.